

VARIATION OF EFFECTIVE FILTER CAPACITANCE IN PHASE LOCK LOOP CIRCUIT LOOP FILTERS

Abstract

A structure and associated method for varying an effective capacitance within a phase lock loop circuit. The phase lock loop circuit comprises a first charge pump circuit, a second charge pump circuit, and a loop filter circuit. The loop filter circuit comprises a filter capacitor with a constant capacitance value. The first charge pump circuit is electrically connected to the loop filter. The first charge pump circuit controls a flow of current for the loop filter. The loop filter provides a voltage for a voltage controlled oscillator. The second charge pump circuit is electrically connected to the loop filter circuit in parallel with the filter capacitor. The first charge pump circuit and the second charge pump circuit vary an effective capacitance value of the filter capacitor.